HSPGs in leverbiopten in mensen met of zonder suikerziekte.

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON26779

Source
NTR

Brief title
HASTRO

Health condition

Type 2 diabetes mellitus, NASH, dyslipidemia
Diabetes mellitus type 2

Sponsors and support

Primary sponsor: Academic Medical Centre Amsterdam
Source(s) of monetary or material Support: initiator is sponsor

Intervention

Outcome measures

Primary outcome

HSPGs expression in liver tissue, measured by qPCR and western blot, in insulin resistant NASH versus non-insulin resistant NASH and controls.

Secondary outcome

1. Association between hepatic HSPGs expression en triglyceride-rich lipoproteins in non-fasting lipid samples;

2. Association between hepatic HSPGs expression and HOMA index.

Study description

Background summary

Rationale:

Non-alcoholic steato hepatitis (NASH) is one of the most common causes of chronic liver injury in many countries. Currently there is no therapeutic intervention to reduce or cure NASH.

NASH is frequently seen in patients with type 2 diabetes mellitus (DM2) and is associated with insulin resistance. However, patients with familial hypobeta lipoproteinaemia (FHBL) are also characterized by NASH yet were recently characterized NOT to have insulin resistance. Thus, different genetic factors driving different pathophysiological mechanisms are likely to be important for the development of NASH. Animal studies have indicated a role for heparan sulphate proteoglycans (HSPG) in the development of NASH associated dyslipidemia and insulin resistance. We would therefore like to investigate whether changes in expression of HSPG synthesizing and degrading enzymes are associated with presence of dyslipidemia and insulin resistance in NASH.

Primary Objective:

HSPG expression in liver tissue of patients with type 2 diabetes mellitus and NASH compared to liver tissue from subjects without type 2 diabetes mellitus with and without NASH.

Second Objective:

Correlation between HSPG expression in liver tissue with levels of triglyceride rich lipoproteins in non-fasting blood samples.

Third objective:

Correlation between HSPG expression in liver tissue and insulin resistance.

Study design:

Case control study.

Study population:

Caucasian males, aged between 18 and 60 years of age, with type 2 diabetes mellitus, undergoing gastric bypass surgery.

Controls: FHBL patients with NASH and Hepatitis C patients and Heamochromatosis patients undergoing a liverbiopsy for clinical staging of the disease. And patients undergoing hemihepatectomy.

Intervention:

During a clinically scheduled gastric bypass surgery, hemihepatectomy or liver biopsy, liver tissue will be collected and blood will be withdrawn.

Main study parameters/endpoints:

1. HSPGs expression in liver tissue, measured by qPCR and western blot, in insulin resistant NASH versus non-insulin resistance with and without NASH;

2. Association between hepatic HSPGs expression and triglyceride-rich lipoproteins in non fasting lipid samples;

3. Association between hepatic HSPGs expression and HOMA index.

Study objective

Hepatic HSPG expression is altered in DM2 patients with NASH compared to controls and determines level of insulin resistance.

Study design

At the day of liverbiopsy, a fasting and non fasting blood sample will be withdrawn.

Intervention

1. Liverbiopsy;

2. Bloodwithdrawal.

Contacts

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Eligibility criteria

Inclusion criteria

Patients with DM:

1. Caucasian males or females;

2. Age 18 - 60 years old;

3. Type 2 diabetes mellitus;

4. Presence of ultrasound confirmed NASH;

5. Undergoing gastric bypass surgery.

Controls:

1. Caucasian males or females;

2. Age 18 - 60 years old;

3. FHBL patients with NASH and Hepatitis C patients and Heamochromatosis patients undergoing a liverbiopsy for clinical staging of the disease and patients undergoing hemihepatectomy.

Exclusion criteria

1. Use of lipid lowering therapy (Modalim), hormone therapy or other medication which influences the lipid metabolism during the past 6 weeks;

2. Active malignancy (not applicable to hemihepatectomy patients);

3. Cholestasis.

Study design

Design

Study type:	Observational non invasive
Intervention model:	Parallel
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	15-01-2011
Enrollment:	8
Type:	Anticipated

Ethics review

Positive opinion

Date:	06-12-2010
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL2523
NTR-old	NTR2641
Other	METC AMC : 09/205
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Study results

Summary results
N/A